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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,492	04/13/2004	Clint Dee Winton Brooks	IFF-72	4948
48/860	7590	04/24/2008		
INTERNATIONAL FLAVORS & FRAGRANCES INC. 521 WEST 57TH ST NEW YORK, NY 10019				
EXAMINER				
CHANNAVAJALA, LAKSHMI SARADA				
ART UNIT		PAPER NUMBER		
1611				
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/823,492

Applicant(s)

WINTON BROOKS ET AL.

Examiner

Lakshmi S. Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SE/IB)
Paper No(s)/Mail Date 8-19-04; 3-21-05; 8-15-05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Receipt of response restriction requirement, & amendment dated 1-2-08 and Information Disclosure Statements dated 8-19-04 and 8-15-04 is acknowledged. Claims 1-25 are pending in the application.

Upon careful consideration the restriction requirement of the previous action has been withdrawn and all the pending claims have been examined.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,112,688 to Michael.

Michael (also discussed in the instant specification on page 4, last paragraph) teaches liquid encapsulated microcapsules, wherein the capsule have a diameter between 50 and 35 microns and a wall thickness between 2 and 50 microns (abstract and claim 1 of Michael). The diameter and thickness values of the microcapsules taught by Michael fall within the ranges recited in claims 1-2, 4-5 The central core of the microcapsules is a hydrophobic liquid material that includes a perfume material and Michael teaches that the perfume material may be both that are highly water soluble and those that are more hydrophobic (col. 4, L 10-38). With respect to the claimed Clog P value, Michael teaches perfume materials that are also listed in the

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instant specification (see for instance, table III on pages 25-26), such as jasmone, d-limonene etc (col. 16, L 30 67) and therefore inherently possess the claimed Clog P values of 1.5 to 8.0. With respect to the ClogP of claim 6 (of the hydrophobic solvent), examiner notes that instant specification on page 11 (first paragraph) states that suitable the hydrophobic solvents with ClogP > than 8.0 include among other oils such as silicone oil (of claim 7). In this regard, the composition containing perfume filled microcapsules of Michael further contains polydimethyl siloxane and silicone DC (Example table 2). With respect to claim 10, instant claim is directed to a product and the process steps described in the claimed do not carry patentable weight "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, while Michael teaches a fabric softener unlike the instant composition claims, the limitation human epidermal and/or hair treatment recited in the preamble, which is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Thus for the reasons above, Michael anticipates instant claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3, 7-9 and 11-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,112,688 (Michael) in view of US 6,024,943 to Ness and US Pub. No. 2004/0005285 to Midha OR Michael in view of Midha

6. Claims 1-13 and 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,024,943 to Ness in view of US 5112,688 to Michael and Midha.

Michael, discussed above, fails to teach the claimed polymer that makes up the wall of the microcapsule, cationically charged polymer of claim 9, the intensity of fragrance of claim 18 and application of the microcapsules to hair.

Ness teaches solid as well as porous microparticles containing perfume in the form of liquids absorbed within the particles for controlled release of the perfume, for retarded evaporation of deposited liquid and enhances the extent to which the liquid survives subsequent to drying step (col. 2, L 50-59). Ness teaches products comprising the particles such as hair care, fabric conditioning and cleaning compositions, with the microparticles comprising up to 10% of the product (col. 3, L 1-10). The particles of Ness have an average particle size of 10 microns up to 125 microns, depending on the use (col. 3, L 28-53). Ness teaches that the particles are made of polymers containing vinyl monomers such as esters of acrylic acid or alkyl acrylic acid and the preparation of the same described in col. 4. In order to encapsulate the perfume, Ness teaches employing a hydroxy functional polymer and urea-formaldehyde or melamine-formaldehyde together with acrylate polymer to form the microcapsules and absorbing the perfume within the core, which meets the polymer of instant claim 3. While Ness does not teach the ratio of the acrylamide-acrylic acid and melamine-formaldehyde-pre-condensate to acrylamide-acrylic acid copolymer claimed (claims 19-22) Ness does recognize that crosslinking the polymer with the claimed formaldehyde is one of the methods of preparing the perfume containing particles and accordingly, in the absence of any unexpected advantage with the claimed ratios of acrylamide-acrylic acid and melamine-formaldehyde-pre-condensate to acrylamide-acrylic acid copolymer claimed,

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it would have been within the scope of a skilled artisan at the time of the instant invention was made to choose the appropriate amounts of the acrylic or acrylamide monomers and the formaldehyde component. Ness teaches numerous perfume compounds that may be absorbed or encapsulated by the particles in col. 7-8 and the suitable solvents for perfumes include ethanol, isopropanol, etc. Ness teaches that the perfume containing particles are used in fabric conditioners and also personal care compositions such as soaps, hair and skin care compositions, including shampoos or shower gels (col. 13-14), which may additionally contain 2 to 40% weight of detergents or surfactants, cationic polymer such as silicones. Examples 14 and 17 of Ness are directed to hair care and personal care products and contain various cosmetic carriers and/or additives that meet the claimed buffering agents, gel base etc.

Midha teaches hair conditioning particles comprising hair care and hair cosmetic components such as surfactants, fatty alcohols, cationic polymers, etc. The particles of Midha are both solid and also hollow (see 0056-0074, with the particle sizes that are within the claimed range. Midha teaches that the compositions are preferably in the range of 2.5 to 7.0 (0090), which is within the range of claims 12 and 13. Further, Midha teaches including additional hair cosmetic ingredients such as thickening and suspending agents such as xanthan gum, guar gum et c., (0175 and examples), which are also claimed in the instant claims.

It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to employ the acrylic-acrylamide polymer with melamine-formaldehyde or urea-formaldehyde as the material to encapsulate a desired perfume

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and employ the perfume containing particles for hair care application or body care applications in addition as fabric softeners because Ness teaches that the above polymer allows enhanced imbibing of the liquid into the particles, enhanced deposition of perfume with retarded evaporation of the perfume. Thus, a skilled artisan would have been able to employ the perfume containing microcapsules of Michael for hair as well as fabric softener applications with an expectation to improve perfume deposition and high retention of the perfume without evaporation.

Alternatively, Ness fails to teach the wide range of microcapsule diameter and thickness of the instant claims. However, Michael, discussed above, teaches the same. Therefore it would have been obvious for one of an ordinary skill in the art at the time of the instant invention was made to prepare the particles of Ness with the thickness and diameter suggested by Michael and yet provide the desired release rate and retention of perfume. It would have been further obvious for a skilled artisan at the time of the instant invention was made to adjust the pH of the composition of Ness or Michael between 2 and 7 and include any of the hair cosmetic and hair care additives such as suspending agents, thickening agents suggested by Midha in the composition of Ness or Michael so as to achieve a composition with the desired pH and viscosity.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 7,119,057 or claims 1-17 of U.S. Patent No. 7,122,512, claims 1-11 of U.S. Patent No. 7,125,835 and claims 1-6 of U.S. Patent No. 7,294,612 each in view of US 5112688 to Michael and US Pub. No. 2004/0005285 to Midha or US 6024943 to Ness et al US Pub. No. 2004/0005285 to Midha.

9. Each of the above patents claims a fragrance material encapsulated in a polymeric shell filled with a liquid core. The polymeric material that makes up the shell in the patented claims constitutes a species that is encompassed by the instant polymeric shell. The encapsulated materials in each of the above patents is employed for cleaning or washing compositions, including fabric, body and hair care and thus meet the instant hair care application. While the patented claims recite the amount of fragrance or the amount of the encapsulated material in the total weight of the composition, the above sets of claims do not recite the claimed microcapsule size, diameter, wall thickness,

cLogP of the fragrance and the additives such as suspending agents etc of the instant claims. The teachings of Ness, Michael and Midha have been discussed above. It would have been obvious for one of an ordinary skill in the art at the instant invention to prepare the microcapsules of the above claims with a particle size taught by Ness (or Michael) because both Michael and Ness teach enhanced deposition of the encapsulated material from the particles, including hair care applications (Ness). Michael further teaches the same fragrance materials that are meet the claimed ClogP values. With respect to the claimed suspending agents, gelling agents etc., as explained above, Midha teaches the claimed components as cosmetic additives routinely employed in the hair care compositions. Therefore, employing an appropriate suspending agent, gelling agent or adjusting the pH of the composition of the above patented claims would have been within the scope of a skilled artisan.

Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 7, 10 and 20-28 of copending Application No. 10/460,610 in view of any of Ness and Midha or Michael and Midha. The co-pending claims of the above application recites fragrance material encapsulated in a polymeric shell filled with a liquid core. The polymeric material that makes up the shell in the claims constitutes a species that is encompassed by the instant polymeric shell. The encapsulated materials is employed for cleaning or washing compositions, including fabric, body and hair care and thus meet the instant hair care

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application. While the co-pending claims recite the amount of fragrance or the amount of the encapsulated material in the total weight of the composition, the claims do not recite the claimed microcapsule size, diameter, wall thickness, cLogP of the fragrance and the additives such as suspending agents etc of the instant claims. The teachings of Ness, Michael and Midha have been discussed above. It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to prepare the microcapsules of the above claims with a particle size taught by Ness (or Michael) because both Michael and Ness teach enhanced deposition of the encapsulated material from the particles, including hair care applications (Ness). Michael further teaches the same fragrance materials that are meet the claimed ClogP values. With respect to the claimed suspending agents, gelling agents etc., as explained above, Midha teaches the claimed components as cosmetic additives routinely employed in the hair care compositions. Therefore, employing an appropriate suspending agent, gelling agent or adjusting the pH of the composition containing encapsulated fragrance materials of the above claims and use them for hair care applications would have been within the scope of a skilled artisan. Examiner notes that the claims of the co-pending applications 10/718,368 and 10/718,239 are also directed fragrance encapsulated microcapsules similar to those claimed in the instant invention and accordingly are subject to rejection under this statute.

This is a provisional obviousness-type double patenting rejection.

Claims 1-25 are directed to an invention not patentably distinct from claims of the above cited patents and the co-pending application, which are commonly assigned (see the explanation above).

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Patents 7119057; 7122512; 7125835 and 7294612 and application 10/416610, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

10. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being obvious over each of the US Patents 7119057; 7122512; 7125835 and 7294612 and application 10/416610 in view of Midha (see above).

11. Each of the applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2). Each of the above cited patents and the co-pending application describes the encapsulated fragrance materials in microcapsules that are made of the same polymeric shell that is cross-linked and the same fragrance materials claimed in the instant. The disclosure of 7119057 has been relied upon. The above patent describes particle diameter in col. 4, 47-54, and factors such as pH in col. 4, I 59-67, capsule materials in col. 59, hair applications in col. 11 and fragrance materials in examples. As explained above, Midha teaches the claimed components as cosmetic additives routinely employed in the hair care compositions. Therefore, employing an appropriate suspending agent, gelling agent or adjusting the

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pH of the compositions containing encapsulated fragrance materials and use them for hair care applications would have been within the scope of a skilled artisan.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 9.00 AM -5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lakshmi S Channavajjala/
Primary Examiner, Art Unit 1611
April 23, 2008

